1. Bowen-Jones et al. K-5 (1955-1958) 1961
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ESSENTIAL STATISTICS

131 The Maltese Islands - Land Area 121.850 sq. miles, Population 323,667[1].
161 Malta - Land Area 94.676 sq. miles, Population 296,093[1].
Gozo and Comino - Land Area 26.974 sq. miles, Population 27,659[1].

162 A. OCCUPATIONAL STRUCTURE OF THE POPULATION[2]

(i)	Civil Government	17,050
463	Service Departments	22,480
(ii)	Agriculture, Fishing and Quarrying	9,130
	Manufacturing	9,030
	Construction	7,220
(iii)	Wholesale and Retail Trades	10,920
	Transport and Communications	3,850
	Insurance, Banking, etc.	550
	Gas Service	20
(iv)	Recreation and Personal Services	7,250
	Community and Business Services	1,140
	Total	88,710

433 B. PRODUCTION[1]

Gross Domestic Product 1957	£ m.	36.1
Gross Industrial Production 1957	"	10.036
Gross Agricultural Product 1957	"	5.008

439 C. TRADE[3]

(i) Commodities (value in £ m)

	Imports	Exports	Re-exports
Food, Drink, Tobacco	9.411	.547	.549
Raw materials and materials mainly unmanufactured	3.227	.312	1.307
Articles wholly or mainly manufactured	13.215	.132	.404
Miscellaneous and unspecified	2.862	.005	.339
Bullion and Specie	.104	-	-
	28.820	.995	2.600

(ii) Direction of Trade (%)

	Imports	Exports
Sterling Area	49.3	41.1
Dollar Area	7.2	.8
O. E. E. C.	33.5	10.4
Other	10.0	2.1
Ships and Aircraft Stores	-	45.6
	100	100

(iii) Balance of Trade

	Imports	Exports & Re-exports	Negative Balance
		Million £	
1949	15.312	1.038	14.274
1954	20.407	2.879	17.528
1958	28.820	3.595	25.225

(Since 1948 the adverse trade balance has increased by an average of 4.7% per annum)

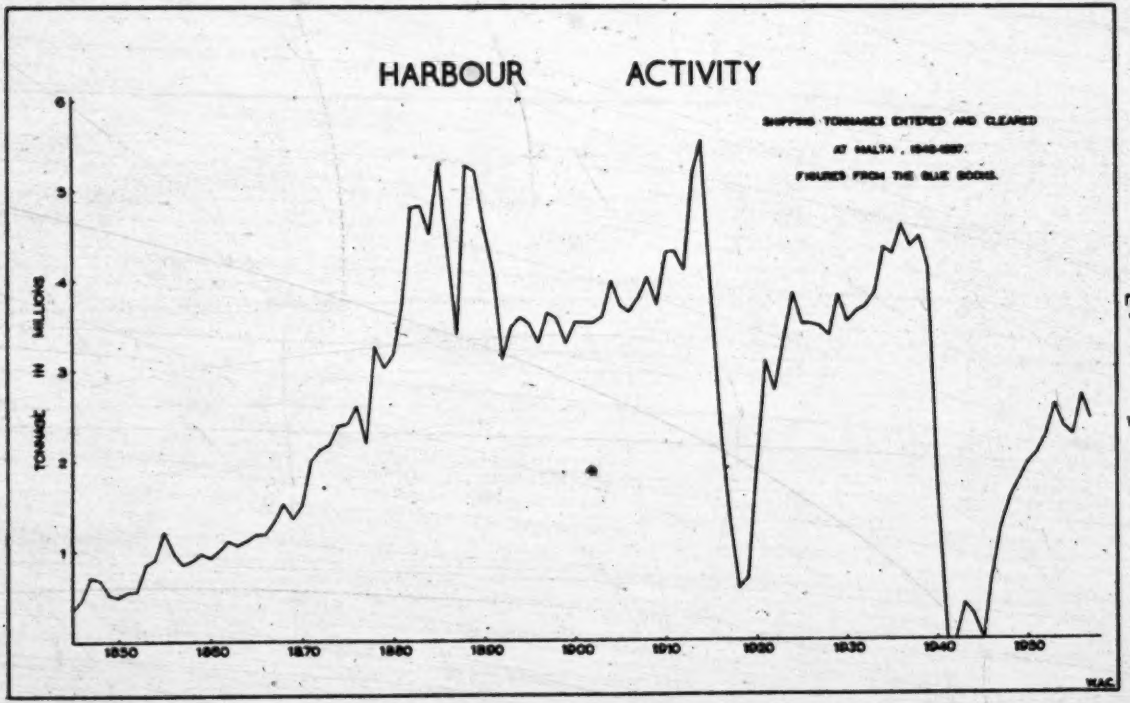
1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

439 F. TRADE IN SOME AGRICULTURAL PRODUCTS AND FARM MATERIALS 1958[3].

	Imports Value £000	Exports & Re-Exports
Food grain and manufactured grain	1,862	18
Meat	1,048	23
Animal feeds	2,785	-
Potatoes	132(1957-99)	353(1957-104)
Fruit and vegetables	891	99
Milk	616	1
Butter, butter subs. and cheese	704	-
Edible vegetable oils	287	-
Eggs	263	-
Wines	74	15
Store bulls	528	-
Fertilisers	32	-
Agricultural implements & machinery	103	-

113 1. Report of the Central Office of Statistics 1958/59. Malta 1959.
2. Annual Report of the Dept. of Emigration and Labour 1958-59. Malta 1959.
3. The Trade of the Maltese Islands 1958. Malta 1959.
4. Report of the Census of Agriculture 1956. Malta 1960.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6



[p. 118-A]

* 105
• 439
505

Fig. 30 Harbour Activity.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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433 458 The main relevant conclusion was unmistakably ominous: 'Government expenditure has more than made up for that of the Knights, and has diverted more of the labour of the population to the service, direct or indirect, of the foreign government which applied it to purposes entirely Imperial and unconnected with the special interests of the colony. Doubtless this expenditure has led to immediate prosperity... but the basis of this prosperity is artificial and precarious' (6). It is possible to argue the degree of validity of the third premiss of the first clause but the general truth is undeniable. This general picture is so clear that in this particular chapter attention will be focussed only on some aspects of the Maltese economy as it has developed during the last 50 years.

43 The changing character of Maltese Trade is well evidenced in the annual reports of the Customs and Port Department. Before World War I, Malta was still of some importance in Mediterranean transit trade, particularly for goods destined for North African and Levant ports. Between 1910 and 1922 the annual average weight of such merchandise handled was 17,000 tons (7). This activity almost disappeared during hostilities and after a short post-war boom settled down at a new low level handling only some 3,000 tons of merchandise. In part this was due to the elimination of the important German and Austrian connection which, in a Report published in 1919 (8), was the subject of much hostile Maltese comment. More important was the fact that the gap thus left was not filled by other foreign or local interests. The Maltese writers of the 1919 Report were not able to obtain their desire 'to have a company formed by a few merchants, who would thus teach Maltese capitalists that the investment of moneys in industries and especially in shipping is more profitable and better for the Islands and for the capitalists themselves, than the investment in doubtful securities or in reckless speculation'. The fundamental difficulties of expanding port activity have remained. Malta, for all the grandiloquence of the name 'Grand Harbour', has until very recently possessed but poor physical facilities for handling shipping. All vessels of over 2,000 tons have had to be worked by lighter, and civil repair facilities as well as warehousing have been extremely limited. In that the needs of the Fleet have been paramount this is understandable; the consequences have been deplorable. The absence of enthusiasm for local investment of Maltese capital has been equally inhibiting. There survives, even intensified during the 1930's, a traditional feeling of insecurity which was succinctly noted by a banker giving evidence before the 1911 Commission: 'There is plenty of money in the Island... there is not much trust, I think' (9). Even now, while the rate of saving in Malta is very high - c. 14 per cent. of total personal income, too large a proportion of the savings are invested abroad - some £70 millions. Given this basic insecurity, which still appears in conversations with business men and which is so deeply rooted as to be very difficult to remove, development is difficult. Moreover, since the Maltese for an island people are singularly non-maritime in character, and, in conditions no more difficult than in many other parts of the Mediterranean, have almost ignored the fishery industry (10), there exists no traditional basis for marine affairs. In these circumstances the value of the handing over of the Naval base to British civilian firms, and the policy of attracting foreign (mainly British) manufacturing concerns, thus making available both facilities and most of the capital, is on economic grounds indisputable.

[504] [454] [238]

● 439 457 One other aspect of port and trading activities must be examined, the nature and balance of imports and exports. The changing character of world trade in the first place has vitally affected the nature of Malta's entrepôt activity. By 1956, the value of re-exports had reached over two and a half million pounds, of which one and a half million represented mineral fuels and lubricants, mainly aviation spirit and turbine fuel (11). This is still the pattern today. Of Malta's transit trade in re-exports, by far the biggest proportion is concerned with supplying the Garrison in its new and more mobile form. The imbalance between retained imports and domestic exports remains essentially similar to that observed very much earlier and is best examined in conjunction with other economic elements.

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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434 unrequited imports were indicative of illegal diamond smuggling. It may well be that, in Malta, a less spectacular movement of capital is similarly responsible
457 for part of the residual items of foreign income. Even so, and considered in a later examination of Internal Revenue and National Product, the implications of a national reliance on this and other elements of income are manifestly significant.

439 If we turn to a consideration of the merchandise in trade, the instability of the situation becomes even more strikingly obvious. An analysis of trade of the Maltese Islands in 1953 (13), the year in which economic conditions for 1954 would be established, shows the following salient points. Britain and the Commonwealth supplied half of Malta's imports thus leaving some £10,000,000 of the remainder to be covered by British credit with other countries. Of the domestically originating exports of three-quarters of a million pounds, only £266,000 went to non-protected markets outside the Commonwealth. These and other details suggest that the Maltese Islands as a whole, not only the Garrison therein, represent a not inconsiderable drain on British reserves of foreign currency. This appears even more strongly from a consideration of the classes of imported merchandise. Imports of Food, Drink and Tobacco (F.D.T.), totalling £7,800,000 were of almost precisely the same value as imports of Manufactures. The Mediterranean Maltese islands naturally depend on imports for main supplies of dairy products. Almost all the £161,188 expended on butter went to the Commonwealth but nearly half of the value of cheese imports - £305,000 in all - came from Italy. Another £161,000 went on eggs, and £785,000 on processed milk. Alarmingly enough however even Mediterranean products were and still are imported in surprisingly large quantities. £130,000 on edible oils, and £353,000 on vegetables, one-third of the latter represented by tomato preparations, are such large sums as to need justification of local inability to produce these commodities. When one notes that, in a Class distinct from the F.D.T. group, a further £1,241,000 was expended on livestock fodder, then one begins to wonder whether agriculture is practised at all in the Islands. There seems no doubt that many of the fresh or processed food and fodder commodities now imported could properly be produced in Malta by better resource use. There remains one difficulty. It is probable that the Knights subsisted mainly on imported products of higher quality than those produced locally. Since 1800, and this is a sign of rising living standards, social emulation has been able to spread this effect through the greater part of the population. The trade figures for later years merely confirm what may be observed directly that most Maltese for one reason or another will deliberately choose foreign rather than domestic produce where possible. In 1956 this led to the consideration of quasi-sumptuary regulations; to us it is a factor in the social environment quite as important as many elements in the physical environment.

652 If we turn to a consideration of the Internal Revenue Account we see how
434 deep-rooted and extensive are those characteristics of the economy already noted.

Thus of Government Revenue approximately one-third was derived directly from outside Malta (C) as a result of activities originating outside the control of the Maltese people. Of the remaining two-thirds (D), the largest part was *indirectly* also so obtained from activities dependent on expenditure by non-Maltese, in that it came from taxation of profits earned by mercantile services to the Garrison, taxation of wages, salaries and industrial profits earned by other services rendered to the Imperial power, and lastly from Customs levies on the goods paid for by external income. This revenue (D) was not in itself in any case large enough to cover ordinary expenditure (A) let alone supply capital for public investment.

434 Many other questions could be raised, e.g. is not the scale of Government
491 expenditure on Administration rather large relative to total revenue?; but we must content ourselves with one last reflection. The paucity of material resources in the Islands is such that capital investment for raising production can only be applied to agriculture and to improving the productivity of labour in those industrial or commercial services called into being by the locational

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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POTATOES (*Patata*)

Potatoes have been for some years the most important commercial plants raised in Malta. First introduced in the early nineteenth century, the acreage used for spring potatoes is now greater than that for any other crop, and the value of potato exports has been exceeded only by that of scrap metal (during the abnormal post-war years of 1951 and 1952). Spring and winter crop acreages combined take up 15 to 20 per cent. of the cultivable land. 311* 244 439

The cultivation of potatoes varies with season and type of land available. The export crop is entirely raised from imported seed. This is planted in December or early January and the crop is ready for lifting from late March onwards, depending on weather conditions during the growing season. The seed, which accounts for most of the total potato imports, is necessary in order to ensure disease-free, good-yielding stock and its use is economic only as long as a high-price market for early potatoes can be found in Northern Europe. On dry soils which quickly warm up in the Spring and which give a fine yet loose tilth, and under climatic and soil conditions which on average are well-nigh optimum for tuber rather than leaf growth, yields are extremely good for the very short growing season. There are however certain hazards. Cool, wet winters delay sprouting and can both reduce and retard the harvest very severely, as in the seasons 1934-35 and 1950-51. Ground frosts in January may have similar effects as in 1936-37. Cool and humid weather during February and March encourages the appearance of blight and over-favours leaf growth - as, for example, in 1955. A more serious hazard is that of winter rainfall deficiency. As can be seen from the weather records (pp. 48 - 52 and Figs. 7, 19, 25), Malta rarely experiences 'average' weather and low winter precipitation can be expected at least once in every five years, e.g. 1957; rainfall: January 3.85 inches, February 0.25 inches, March 0.46 inches, April 0.41 inches. The thin, light soils, which otherwise are so suitable, are very quickly dried by strong winds and yields then decrease considerably. On non-irrigated land of medium quality, the yield is rarely more than fourfold and usually less. A reduction in yield of the order of 50 per cent. means considerable loss. For this reason, a very large amount of the best irrigated land is used for this crop in order to ensure good returns. Total yields are further depressed by the very short growing season, by local mineral deficiencies, by inadequate spraying treatment against fungus diseases, and by poor manuring. The general reliance on sulphate of ammonia is not only misplaced but may be positively dangerous.

The summer crop, unimportant in size and acreage, is obtained from the sowing of local seed in early summer and harvesting in September. This can only be done on irrigated or very fertile land and is entirely for the Maltese market. The winter crop, approximately half as important in bulk as that of the spring, is from local seed sown in early autumn and harvested in December and January. This supplies most of Maltese requirements. In these cases also, vagaries of weather result in great fluctuations in yield.

Potato cultivation on dry and irrigated land makes heavy demands on labour for sowing, tilling and lifting. Since climatic conditions on average give good sprouting ratios, the tubers are usually divided into thirds and quarters for reasons of economy. This economy becomes less marked when hand labour becomes as costly as at the present moment. The heavy water demands of the growing plant make continual hoeing essential, and, since the harvest is short and the crop value highest at the end of April, the demand for labour reaches a dangerously high peak at this time. Marketing of the export potato crop is equally hazardous. The high-priced earlies can only be sold in the relatively wealthy markets of Northern Europe. Freightage is costly, averaging £8 10s. 0d. a ton Marsa to Glasgow. [439]

Official policy is to encourage the replacement of varieties such as Arran Banner by earlier varieties - 'scrapers' - of wider market appeal. The economics of early potato growing are further complicated by the year-to-year fluctuations in acreage. These variations correspond to a year's time-lag in reaction to changes in market price. Thus, in 1957, a glut, which resulted from market rather than producing conditions, was followed by a surplus of seed and 311* 244 439

[Text Continues on p. 211]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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a reduction in the acreage planted during the following winter. In spring 1958, the export market could have absorbed more than the total production. Official encouragement to re-expand cultivation followed. Moreover, the main importing countries are those in which regulations governing the health of imported crops are most severe, and in which competition is most keen. When to these factors one must add two more, viz. the very high water demands of the crop and its comparatively low bulk value and high freight costs; then a very considerable doubt arises concerning the rationality of this sector of agriculture. On unirrigated land, a potato crop leaves the soil deprived of most of its water. On irrigated land it competes with crops of higher bulk value some of which are already cultivated on a smaller scale, such as strawberries, globe and Jerusalem artichokes, asparagus, sub-tropical fruits, etc. Potatoes require no less labour, no less fertiliser, and are much less amenable to handling by fast land or air transport. The impression left by the crop survey is that Malta has almost somnambulistically developed this specialisation and that the ecological and economic implications have never been seriously examined.

311* 194 [439]

Figs. 79 and 80 show the extent of land under potatoes during March and April. In Malta, the main concentrations are to be found in three different types of region. First, cultivation is widespread on the Globigerina lands. Most intense around the 'casals' and villages of the east and south, it seems more to be associated with human rather than with physical factors (see Chapter VIII). A marked thinning out is noticeable on the higher central slopes rising westward to the Coralline uplands. Secondly, there exist the very important concentrations in the major irrigated basins of the west and north such as Wied tal-Pwales, the Mellieha isthmus and the Marfa oases. Lastly, potato cultivation is of considerable extent on the smaller and more dispersed irrigated plots of the Upper Coralline plateaux, e.g. Hofret ir-Rizz. In the predominantly dry-farmed upland basins of Bingemma and Mizieb, the acreage is relatively small.

Early potato cultivation in Gozo is of much less importance, the island being one further step removed from the export market. Concentration is significantly greatest within easy reach of the settlements. In addition, potato growing is of importance in the tree-fruit and vegetable zones of the north-east. The crop is almost entirely absent from the more remote areas.

TREE CROPS

311* 245

In the Maltese Islands are to be found a great variety of tree-crops of all kinds on irrigated and non-irrigated land. This variety, exemplified in one field in the Wied Qlejgha which carries apples, peaches, loquats, pomegranates, citrus fruit and vines, is in some ways detrimental to cultivation standards. Only a very few regions are completely devoid of tree-crops. Thermal conditions make possible the growth of a crop range extending from the temperate pome fruits to sub-tropical and tropical types such as the date and banana (albeit with poor results in the latter cases). Low water availability in the soil is the main restrictive factor. Irrigation generally doubles the yields of fruit crops and is essential for citrus cultivation. It is, however, certain that yields could be considerably increased, even on unirrigated land, by improvement of stock quality, by reducing disease and pest infestation and by less intercultivation. One of the main problems in Malta and Gozo is that, as elsewhere in the world, farmers with a strong subsistence-farming streak in their makeup are apt to prefer the security of inter-cultivated poor crops to hazardous but rewarding specialisation.

One non-human factor which makes the arboriculturist's task more difficult is the wind-humidity complex. As noted in Chapter II, the effects of high wind velocity on transpiration and in producing physiological drought are considerable. High humidity, even in summer, produces special problems of plant pathology. Successful competition with more sophisticated producers possessing greater natural advantages seems unlikely.

[32]

1: Bowen-Jones et al. K-5 (1955-1958) 1961
EZ6 Malta EZ6

VINES

Viticulture, has suffered many vicissitudes. Needing irrigation water only for the raising of scions, the vine would seem a crop plant eminently suitable for all but the thinnest dry calcareous soils. No satisfactory reason has yet been adduced for the present absence of 'expertise' in this field, and this unsatisfactory state of affairs is a Mediterranean anachronism. Since Giacinto (3) wondered at Maltese oenological ignorance various improvements have taken place. Stock is American in origin imported during the Phylloxera epidemic in Europe. Scions are officially imported for grafting and are mainly from France. On the whole, too little specialisation is found, grapes being grown both for table use, fetching prices about £4 per qantar (175 lb. ave.), and for pressing - controlled prices 46s. to 48s. per qantar depending on quality. Commercial success in any other than the home market will depend entirely on whether the viticulturalist can now be weaned from quantity production to quality production. Products at present, while being remarkably good value, are not suitable for profitable export.

In Malta (Fig. 81), there is a striking concentration of viticulture in the western half of the island. In contrast to general Mediterranean practice, vines occupy much of the best watered heavy land of the Blue Clay slopes. Secondly, vines are of importance in the larger depressions with plentiful sub-soil water, for example the Wied il-Ghasel, the Bingemma Basin, and Mizieb. Those cultivated areas of the north and west which rely on pump irrigation - such as the Wied tal-Pwales, and the Rabat-Dingli upland pockets - have little land under vines. Over the remainder of the island, vines are mainly represented by wall- and house-side plants which, mainly for domestic use, are becoming of less importance as field cultivation is extended. This extension of acreage is taking place almost entirely in the traditional regions of the west.

As shown in Fig. 82, viticulture in Gozo, occurs in a great variety of conditions and there is a much greater extent of inter-cultivation with other tree-crops. Such inter-cultivation is particularly found in the *gnien* zones - the spring line belts lying below the Upper Coralline mesa cappings - as around Żebbuġ and Nadur. North of Nadur, it extends into the Wieds San Blas and Dahlet Qorrot. Except in the remote western lands and on the thin soils of the southern hills, vines are found everywhere; in the central mixed-soil lowlands, in the open northern valleys and on the eastern coastal slopes. This reflects the traditional self-sufficiency of the Gozitan farm economy, a point also brought out by the large number of vineries (see p. 213). The vine is also inter-cultivated with sulla which, undersown annually, is a useful soil-renewing and cleaning crop.

OLIVES

Inset maps, Figs. 81 and 82. Malta must be the only Mediterranean land where the tradition of olive cultivation has almost disappeared. Vegetable oil consumption is high and has to be supplied by imports costing on average nearly £300,000 per annum. Olive cultivation has been more extensive in the past as attested by place names such as Żebbuġ - the place of the olive, and Żejtun - olive tree, and is still perfectly feasible over a great deal of under-utilised land. Various reasons for this strange situation have been mooted, ranging from the completely invalid belief that the olive cannot stand sea-air to the inadequate charge that tenurial security is insufficiently great. The matter is still a mystery.

Recent extensions of planting, particularly at Salinas and on Bajda Ridge, have been Government-sponsored, and the latter case is basically a scheme for the afforestation of a water catchment and percolation area.

CITRUS FRUITS

Because of their large water requirements, oranges and lemons are of orchard importance only along the Upper Coralline - Blue Clay springlines in Western Malta and Eastern Gozo. Scattered trees and very small plots are found in many districts, often in the most unlikely places. The Seville orange, once of considerable importance, is now rarely found and most of the old trees have

[Text Continues on P. 217]

231 proved its superior adaptability. An interesting point is that, before 1914, Serbia
232 and Croatia exported to Malta large numbers of pigs for fattening, while Yugo-
slavia is today importing Large Whites as breeders from this country. It is now
[139] illegal to use other than pedigree boars for breeding, and the success of the
Agricultural Department and the relative enthusiasm of the Maltese farmer in
raising pig production standards have made Malta self-sufficient in this respect
at least. Local grain and imported beans form the basis of feeding stuffs given
by the best farmers. Animal slaughterings now average about 30,000 head per
annum.

23 Of the total cattle population of some 6,000 in Malta and 3,000 in Gozo, nearly
30 per cent. are milch cows. This proportion has increased steadily since the
first introduction of milch cows in the early years of British occupation. Before
1800, the indigenous Maltese breed, raised as general purpose stock in normal
[197] peasant tradition, alone was of importance. During the nineteenth century,
specialised breeds were slowly introduced, a process which culminated in trials
with Swiss Brown, Polish and Jersey cattle during the 1920's and '30's. By 1939,
the cattle were mainly of mixed blood with the older strains predominating, and
those still found are rapidly being displaced because of their low milk yields
of some 1 to 1¼ gallons a day. The only surviving registered Maltese bull is to
be seen on a farm at Bingemma Gap. In the post-war period, imported Ayrshires,
British Friesians and Durham Shorthorns have proved very successful and
popular. The Friesian strains in particular are very effective for crossing,
important in that most country herds are still of mixed blood. A typical compo-
sition was noted in a stockyard on Delimara Peninsula - 13 milk cows and three
heifers consisting of pure polled Maltese, Friesians, Friesian/Maltese crosses,
Ayrshire/Maltese crosses, together with seven Friesian and crossed Friesian
[139] calves. Store cattle, of which over 3,000 are annually imported for fattening,
are of various breeds, and come in the main from within the Mediterranean
region.

231 This cattle population, which supplies half of the total production of milk in
234 Malta, and approximately two-thirds in Gozo, as well as over 75 per cent. of
the beef consumed, is a very special element in Maltese agriculture. The
imported store cattle have but to be fattened for slaughtering. Trustworthy
statistics are lacking, but it would seem that over one-half of the imported
fodder is consumed for this purpose.

The milch cows are given a maintenance ration of sulla and other leguminous
fodders, and a production ration of imported beans, grains and cake. Carob beans
and chopped prickly pear are sometimes used, and *oxalis cernua* may also be
fed in moderation.

231 This large demand for fodders has so far been met by maintaining at high
234 level the production of leguminous and grain crops. Only in recent years has it
become economic to add high protein feeds. For social and health reasons the
246 human consumption of high protein foods, milk in particular, has been
encouraged. It has therefore often been suggested that further concentration on
production of forage crops is necessary.

It is probable that such a policy would be both uneconomic and impracticable.
In the first place, as long as it requires an average of 6 lb. weight of fodder
protein to produce 1 lb. weight of animal food protein, then any country with
restricted land resources has to look twice at the wastage involved. Such a
country, having to import either animal products or vegetable products, or even
both as in the case of Malta, has little to gain by specialising in a production
technique in which over three-quarters of the crops grown and imported for
feed merely go to maintaining livestock in existence. Thirdly, since that land
now grazed by sheep and goats is virtually unusable in any other way, they
cannot be simply replaced by cattle. More cattle would mean less arable farming
of food crops and this would entail either the loss of potential vegetable exports
from irrigated land or, more feasibly, the improvement of arable dry-farmed
crops, e.g. sorghums in place of barley.

The impracticability of a policy designed vastly to increase forage production
may be proved as follows. The growing of perennial fodder crops is out of the

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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242 has pointed out (7), any further advance through the introduction of exotic and specially bred more productive varieties needs careful examination in that since 'nearly all citrus... is budded on sour orange stock... there is a great danger of the total loss of all trees should the *tristeza* virus be introduced'. The expertise needed in this type of development is not present in traditional husbandry.

Apart from the ecological and technical problems, lie the economic and social questions. The Maltese farmer is prepared to take experimental risks only so far as he can understand their consequences. Potato cultivation, only developed on a large scale during the last century, is now a very important commercial element on most farms. Having attained a reasonable level of success with Arran Banner as a quasi-early potato, even the most enterprising cultivators are reluctant to extend further hostages to fortune by trying new varieties. The efforts of the Agricultural Advisory Service in the crop selection field (8) are meeting with some deserved success but the nature of indigenous conservatism needs to be realised. Many Maltese farmers achieve reasonable results by the proper use of traditional crops and techniques. In those regions of the world where the level of productivity is much and unreasonably lower, for example in the mountains of Tuscany, or the paddyfields of Vietnam, rapid improvements can be relatively easily demonstrated. When, as often in Malta, second stage development challenges a traditional husbandry which is giving not unprofitable results, then resistance to change is much stronger. From one of the case-studies the common type of social resistance may be thus illustrated. On an irrigated holding carrots proved a profitable cash crop. The farmer was told by a returned emigrant that paraffin spray was very suitable as a weed killer. He chose a small patch, in his own words, 'where no-one could see what I was doing and laugh' and tried the new treatment. Eventually convinced of its efficacy, this farmer was able to observe the slow visual impression made on his neighbours.

Fear of failure in neighbours' eyes has to be put alongside a strangely humble pride which will cause a group of farmers to listen with genuine respect to the suggestions of an expert, to raise no queries, but also to take no action since, although the adviser must be right in general, his knowledge cannot on *a priori* grounds be applicable to anywhere in particular. Thus another farmer, rather than confess to an outbreak of true blight in a field-trial plot of a new potato variety, dug up the crop, sold it and reported total failure.

242 Illuminating also is the attitude to fertilisers and chemical aids to husbandry.
439 All artificials are at present imported and used in conjunction with animal manure and town refuse. In 1954, before the main programme of agricultural research and extension, the relative importance of imported fertilisers was as follows:-

IMPORTS OF FERTILISERS 1954

	Volume	Value
Sulphate of Ammonia	1,834,000 Kg.	£40,983
Sodium Nitrate	150,000 Kg.	3,550
Phosphatic fertilisers	2,032 Kg.	43
Potassic fertilisers	2,000 Kg.	51
Other chemical fertilisers	100 Kg.	6
Organic manures	382 Kg.	101
(Copper Sulphate-Bordeaux mixture	-	6,038)

242 The overwhelming reliance on nitrogenous fertilisers is a result not of their proven efficiency but of an incorrect reaction, by cultivators possessing practically no scientific understanding of the processes involved, to new ideas of soil feeding. It seems probable for instance, that most Maltese soils have a low potassic content. Nitrogenous fertilisers cannot give their best results under these conditions and their over-use may result in further impoverishment of

1: Bowen-Jones et al. K-5 (1955-1958) 1961
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was that gross financial loss totalled £124,000 representing an equivalent subsidy to consumers of M.M.U. products, while, if profits on imports were subtracted the figure would rise to over £200,000. The commercial aspect of milk marketing is thus completely artificial and dominated by welfare policies. Price policy, even so, has not been powerful enough to even out the immense seasonal fluctuation in production of goats' milk, roughly half the total, and the smaller but still considerable fluctuation of cows' milk.

Meat production is rather more crude. The Government abattoir slaughters all the horned cattle, most of the swine and a considerable proportion of sheep and goats. The commercial transaction between producer and butcher is usually direct. Here once more the small scale and the unspecialised nature of meat production controls all else. The 1956 Census of Agriculture recorded only nine specialist cattle breeders and 94 breeders of swine as compared with over 700 engaged in sheep and goat breeding (in roughly equal numbers). Licensed importers bring in the store cattle which are then usually sold to non-specialist farmers. Feeding standards are as low as with milch cows. There is little incentive to improvement because of the low standard set by the widespread practice of milk producers selling old and diseased stock for butchering. Pig meat and store-bull meat do command a premium but, while some 15,320 horned cattle were slaughtered in 1957-58, the average import rate of stores is only some 3,000. In the same year, 5,000 sheep (of the indigenous poor breeds) and 8,400 goats (mainly those useless for milk production) as well as 7,800 lambs and kids, were slaughtered. The commercial side of meat and, for that matter, hides and skin production, like that of milk, can only be improved as and when the arable sector of agriculture is further developed.

Lastly, we must refer to exports. For some years, the most important exported agricultural product has been the spring crop of potatoes. Some general points concerning the production and sale of potatoes have already been made (Chapter VII, pp. 205-206), but one or two points need expansion here. The main market for pseudo-early potatoes grown in the Mediterranean (harvested in April and May), lies in North-West Europe. During the earlier part of this century, Holland, Belgium and Germany were the most important buyers but, of recent years, the Arran Banner variety, which yields well as a pseudo-early in Malta, has only found favour in Glasgow. By 1955 this dependence on a single main market was appearing dangerous and since that time, as noted by Haesler in 1957 (8), more heed has been taken of consumer demand for other earlier varieties, yellow rather than white fleshed, such as the Eigenhemer. On the marketing side, some important problems remain. The virtual absence of good civilian port facilities and the dependence on lighterage puts up freight costs and discourages shippers. The middlemen and wholesale handling of produce for export is not above reproach while the only worthwhile markets expect good and consistent quality of graded merchandise. Here the deficiencies of even the most commercially sophisticated part of the community can partly negate improved efforts on the part of the producer. Standards set by the home market tend to affect the services rendered to foreign markets and before the latter can be expanded, the former will have to be improved. There is one sector in which a separate break-through has begun. Air freightage of high value for bulk merchandise (which does not include potatoes) can make distant markets accessible to medium-scale individual producers. Thus flowers, plants and seeds are to some small extent being traded by a few growers sufficiently skilled to bypass the mercantile system. This cannot be done by all but it might encourage emulation.

The whole of the marketing organisation is of course organically associated with production and the commercial aspects of production need consideration.

One of the first points that strikes an observer in the Islands is that the production of the different commodities is altogether too concentrated in time. In the case of milk, a traditional organic cycle imposed by crude goat husbandry imposes great financial strains on the centralised agencies. With crops it would seem that traditional fear of risk-taking, rational enough in a peasant economy but antithetical to the whole nature of commercialism, is now hampering

2: Boissevain E-5 (1960-1961) 1965
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by the officials of the governing body, or *Università*. This body, which met in Mdina, the old capital of the island, was composed of representatives of the nobles, learned men, secular priests, merchants and artisans elected by all the family heads in the towns and villages of Malta and Gozo. The Knights of St. John, however, severely limited the authority of the Università, and during their final years it was little more than a public corporation responsible for the importation of scarce foodstuffs.

The Order made itself responsible for local government. It controlled and financed the local militia, police, courts, water supply, public works, hospitals and charities. The government of the Order was highly centralized, and all key posts were held by Knights, though many of the lesser administrative offices were given to Maltese nobles, lawyers and clerks. The authority of the Order was made effective in the rural areas through the police and the ten Captains who were in charge of military garrisons and arsenals, located at strategic points for internal security and defence against war parties and corsairs, and were also responsible for mobilizing the militia. This paternalistic system of administration came to an abrupt end when Napoleon drove the Knights from the islands. Their departure marked the end of an era.

Napoleon remained in Malta only eight days, but they were busy days. According to Laferla, 'it is certain that no one in the space of a few days attempted more, did more and upset the Maltese more than he did.'[1] He set up a nominated council of Maltese to see to civil administration, remodelled the tribunals along French lines and established twelve municipal councils. He abolished the nobility. He closed the University, established a central technical college and founded fifteen government elementary schools. He also sent sixty sons of wealthy families off to study at republican colleges in Paris at their parents' expense.

'All this and probably much more would the Maltese have patiently tolerated,' says Laferla, 'had Napoleon not interfered with religion.'[2] For he set out to curtail the influence of the Church. He limited the jurisdiction of the Bishop to purely ecclesiastical affairs, ordered the expulsion from the islands of all non-Maltese clergy and reduced the number of clerics. He also instituted civil marriage, gave protection to the Jews and forbade

[1] A. V. Laferla, *The Story of Men in Malta* (3rd ed.; Malta, A. C. Aquilina and Co., 1958), p. 144.
[2] *Ibid.*, p. 148.

2: Boissevain E-5 (1960-1961) 1965
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definition of the dogma of her immaculate conception four years earlier, and to St. Joseph, who was declared patron of the Catholic Church in 1870. Virtually all the secondary partiti are dedicated to one of these two.[1] At the same time, there was a general elaboration of the celebrations connected with the cult of saints, including the Italian and Sicilian custom of having bands play during the festas.[2] These were but a part of the more general influx of Italian ideas and customs which accompanied the refugees from Italy of the Risorgimento, who streamed into Malta following 1850. The propaganda efforts of the pro-Italian politicians of the time assisted in the diffusion of these customs, especially in the urban areas.

During this period a conception of social organization new to Malta was also gaining currency, namely the idea of voluntary associations for laymen, and in particular, social clubs for 'gentlemen'. After the establishment in Valletta of the exclusive British Union Club in 1826 and the equally exclusive Casino Maltese in 1850, clubs of various kinds began to spring up in many villages. They multiplied so rapidly that a local chronicler wrote in 1890, 'Today you don't find a village without one or two, nor a city without three or five.'[3]

The latter half of the last century was a period of relative economic prosperity for Malta. This resulted from the increase in military and naval activity after the outbreak of the Crimean War; the sharp expansion in government spending on public works programmes from 1859 to 1865; and the renewed world demand for Maltese cotton as a result of the cotton shortage created by the American Civil War.[4] The economic boom increased the demand for unskilled labour from the villages. This, in turn, helped to disseminate urban-Italian cultural traits. It also provided a financial basis which permitted increased expenditure on festa decorations, fireworks, and above all, uniforms and instruments for the bands. Finally, this period saw the establishment of government schools in all the villages. City-born schoolmasters moved into rural

[1] See Appendix A.

[2] See, for example, Giuseppe Pitrè, *Feste Patronali in Sicilia*, vol. XXI of *Biblioteca delle Tradizioni Populari Siciliane* (Torino-Palermo, Carlo Clausen, 1900), *passim*. He also indicates that a number of Sicilian towns and villages are divided by rivalry between supporters of different saints. (pp. xlvii ff.)

[3] P. P. Castagna, *Lis-Storia Ta Malta* (3 vols.; Valletta, C. Busuttil, 1890), III, 128.

[4] Charles A. Price, *Malta and the Maltese: A Study in Nineteenth Century Migration* (Melbourne, Georgian House, 1954), pp. 105 ff.

4: Cassar P-4, 5 (no date) 1964 EZ6 Malta EZ6

body include faces, eyes, ears, upper limbs, hands, trunks, female breasts, hearts, thighs, legs, and feet (Plate 1, Fig. 1). Although they show no deformities and no pathology they indicate the part affected by illness and healed by divine intercession. Thus 'legs were offered for paralysis, congenital anomalies and chronic ulcers in the lower limbs; 'arms' and 'hands' for fractures and threatened loss of fingers by injury or gangrene; 'ears' for deafness and otitis; and 'eyes' for a variety of ocular diseases. Sometimes, however, the association of illness and anatomical part is not so specific; thus 'trunks' were offered for such varied conditions as throat affections, hernias, and mental disorder; 'faces' for enlarged glands in the neck; and pairs of female 'breasts' for deficiency of milk in a lactating mother as well as disease of these organs.

They were made of wax or of raised work in gold and silver foil. Those met with at present are the silver ones, the others having disappeared from the churches though they were still being offered at the end of the last century if not later. There are records of wax effigies of arms, legs, eyes, and babies and also of gold ones having been deposited at that period at Ta Pinu Church at Gharb in Gozo. A pair of gold legs cost £17 (*Id-devot ta Maria* 1890; Kerr 1893). Wax figures also existed until some thirty years ago in the small church of Tal Mirakli at Lija (Tanti 1962). These objects were manufactured in Malta but some of them were imported from Sicily and North Africa. The gold and silver foil was hammered into the desired shape over dies of bronze by a silversmith (Plate 1; Fig. 3). They vary in size from 6 by 2½ inches to 1 by 3½ inches. Some of them bear hall-marks which help to date them and identify the source of manufacture. The earliest met so far by the writer is a stylized silver model (in the writer's collection) of a pair of female breasts impressed with the hall-marks of the Grand Master of the Order of St. John of Jerusalem, Em. de Rohan who ruled over the Maltese Islands from 1775 to 1797.

The deposition of anatomical 'ex-votos' in Maltese churches ceased in 1935. The ecclesiastical council held in that year in Malta under the presidency of Cardinal H. Lepicier disallowed the exhibition of 'votive offerings showing parts of the human body except those in the shape of a heart', (*Concilium*, 1935, p. 60), so that the present-day visitor will hardly see anything else except 'hearts' hanging by the statues of the saints to whom they were offered by grateful devotees. The more 'profane' models have been melted and converted into sacred utensils for the church service.

Very occasionally instead of an anatomical representation, we come across a silver tablet commemorating deliverance from illness. Here is a specimen inscribed in Latin:

P. Trapani cum suis / A. MDCCCLXXXVII / Ab Asiana Lue /
Incolumos (*Id-devot ta Maria*, 1888).

that is P. Trapani and his family spared from the Asiatic Disease of the year 1887.

(The Asiatic Disease was cholera of which Malta had seven outbreaks during the last century. The 1887 epidemic lasted three and a half months and had a mortality of over 50 per cent.)

Quite often the making of a vow was accompanied by the recitation of prayers and by touching the diseased part with some object associated with the healing saint. These actions include the smearing of the part, in the form of a cross, with oil obtained from the sanctuary lamp; touching the part with a sacred image or medal; sipping water in which rose-petals from the altar, dedicated to the saint or Virgin, had been immersed;

TABLE 3

Year	Purchased by M.M.U.		Surplus		Percentage cows' milk	
1943-44	510,000	gallons			27	
1948-49	776,000	"				
1950-51	1,298,000	"			35	(1951)
1952-53	1,795,000	"	99,000	gallons	44	(1953)
1954-55	2,390,000	"	275,000	"	48	(1955)
1956-57	3,542,000	"	391,000	"	57	(1956)

A consideration of Cases I to IX and XII (Section 6) shows how this official support for dairying in the Islands has made herdsmen in the Islands desperate to benefit from the guaranteed milk market. Many have greatly increased their herds and withdrawn from other aspects of their farming in order to concentrate on milk production. Removal of Government support would have serious repercussions (Section 2) but, meanwhile, the herdsman is well satisfied with his steadily increasing income. The attitude of mind which permits a herdsman to develop a particular aspect of farming on this basis is significant. Clearly he has little awareness of the artificial basis of the position or, if he has, he is poor enough to take advantage of anything likely to bring a ready return whatever the long-term limitations may be.

Following the same pattern it would seem that if the farmer can be persuaded, for example, that he would increase the profit from his farm if he were to keep cost account records and modify his farm management accordingly he would be happy to do so. Similarly, as long as the balanced ration for pigs seemed to be doing his animals no harm he continued to feed it because it was subsidized and cheap. When, through mismanagement, the animals showed no signs of any improvement he returned speedily to the traditional feeding pattern. But this is a comparatively small question by comparison with the large-scale distortion of the dairying industry as a result of the guaranteed milk price - although the farmer does not think of the situation in these terms. There emerges, therefore, something of a moral obligation on the part of the Government to maintain the situation which a subsidy or virtual subsidy, as in the case of dairying, has produced.

Just as the farmer thinks only a short way ahead in time as far as the management of his farm is concerned so are his notions of space restricted. Earlier in this Section it was observed that he is aware of little beyond Malta. Thus it is difficult to make the farmer appreciate the intricacies of the export market for Maltese agricultural produce[42]. The fact that Maltese produce for export

439 suffers by being inadequately graded and packed does not concern him although the specialist working in Malta on marketing problems has stressed this as a primary weakness up to now (B/253). The farmer is further reluctant to [178] change to the production of certain 'early' varieties of potato which would sell much more profitably on the overseas market than does the Arran Banner which has been the predominant variety in the Islands for several decades.

178 The argument returns, in fact, to the thesis put forward in a number of contexts in this report that the farmer 241 is still thinking very much as a peasant subsistence producer although to outward appearances he has now become a fully commercial, cash-cropping farmer. This outlook, the product of illiteracy and confined experience, will have to be appreciated by those concerned with any kind of improvement and development in the Maltese agriculture. It is the younger, literate generation of the farming community who would be capable of education in these terms - if they stay in agriculture to be educated.

654 In the long run it would appear that the most satis- 426 factory kind of financial help to farming is the loan at very low interest rate (Section 2). The basis of this was the Agriculture and Fishing Industries (Financial Assistance) Act, No.11 of 1956, which authorized the loans for approved capital improvement projects at only 1% interest per annum. A major result of the loan system was that it made the farmer independent of money-lenders and money-lending middlemen. Previously many farmers had suffered near financial strangulation in the grip of these indivuals, particularly where they were operating under perpetual debt (v. Cases V and IX). A second great advantage of the loan is that the farmer is able to improve his farm and farming and at the same time preserve that independence of operation so dear to him. Many of the subsidies on seeds, rations, etc. have forced him to use his money in a certain way. He much prefers if possible to have the money and spend it as he chooses on machinery, livestock and fodder, buildings, cisterns, irrigation equipment, land reclamation, and repayment of previous debts, etc.

654 One disturbing feature of the loans is, however, that 426 they are putting a lot of money into the hands of the farmer without necessarily ensuring that it is spent to 454 the best advantage of agriculture or to the farmer himself in a long term view. For example much of the money loaned has been put towards the purchase of livestock and accommodation for animals in order to increase milk production, while the present regime of guaranteed milk price remains. To this extent the loans have helped the

6; Bealey K-5 (1957-1958) 1959 EZ6 Malta EZ6

APPENDIX 1 C : Some Trade Statistics, 1957.

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(i) Principal Trading Partners, 1957 (B/181-1957)

COUNTRY	IMPORTS[a] into Malta £	EXPORTS from Malta £	RE-EXPORTS from Malta £
United Kingdom	11,237,471	283,142	240,748
Canada	1,189,815	7,525	6
Australia	488,947	12,048	2,047
H.M.Ships & British merchants ships and aircraft	77,250	8,988	1,789,118
Rest of Commonwealth and Eire	841,083	43,710	23,391
Italy	3,334,315	254,164	181,519
Netherlands and Antilles	1,887,855	25,765	438
France	1,296,872	18,915	3,657
West Germany	1,099,727	19,089	9,366
United States	876,754	508	4,426
Denmark	641,590	3,938	1,317
Yugoslavia	607,583	9	100
Lebanon	598,647	2,009	3,079
Libya	418,087	193,436	158,382
other foreign countries except Eire	2,631,500	14,214	84,254
	£27,000,056	£887,535	£2,469,849

(ii) Commodities, 1957 (B/181-1957)

Article (£)	IMPORTS[a] into Malta	EXPORTS from Malta	RE-EXPORTS from Malta
Food, drink & tobacco	8,990,319	222,395	438,359
Raw material & articles mainly unmanufactured	3,578,170	494,503	1,807,631
Articles wholly or mainly manufactured	11,838,029	165,054	176,281
Misc. & unclassified	2,606,538	5,583	337,598
	£27,000,056	£887,535	£2,469,849

a. excluding Gold.

(iii) Customs Revenue on Imports, 1957 (B/181-1957)

£ 3,848,820

(iv) Trade in selected items of 'Food and Drink', 1957 (B/181-1957)

Article (£)	IMPORTED into Malta	EXPORTED from Malta	RE-EXPORTED from Malta
Meat - uncanned	383,991	-	8,872
Meat - canned	903,255	8	14,153
Milk - evaporated, dried, condensed	788,908	-	1,478
Butter	129,970	-	810
Cheese & Curd	400,857	-	378
Eggs	183,434	-	-
Fish & Preparations	171,333	97	1,576
Wheat - unmilled	1,391,807	-	-
Barley - unmilled	78,877	-	-
Fruit & Nuts - fresh	421,883	-	63
Fruit - fried & preserved	206,829	25,334	8,185
Potatoes - table	1,083	104,961	-
Potatoes - seed	97,742	-	-
Other vegetables	832,739	15,070	-
Animal feed	468,181	-	-
Alcoholic Beverages	373,008	28,819	89,389

9: Luke G-5 (ca. 1920-ca. 1960) 1960
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Classical authors as well as travellers of the Renaissance and later ages have praised Malta's fertility, the quality of its corn, its fruit, its linen and its cotton,[1] the sweet scent of its roses,[2] the delicate aroma of the wild thyme that flavours its honey. Cicero, in fact, called Malta a land of honey and roses, and it was being described in similar terms nearly two thousand years later. "The fruits are of exquisite flavour," wrote Dr Meryon, Lady Hester Stanhope's sorely tried physician, companion and biographer. "Flowers are very fine, and I could not help fancying the roses more fragrant than in my own country. Malta honey is highly esteemed." Elsewhere the Doctor remarks that "no people are more attached to their country than the Maltese to their barren rock"; and it is natural enough that the Maltese of to-day should like to refer to their island as "the flower of the world."

This phrase, if held to refer solely to scenery and vegetation, might appear to some to verge on the excessive. If it be taken to apply to the many-sidelines of Malta's interest and amenities it does not lack justification.

[1] During the era of sailing-ships Malta, and especially the casal of Zebbug, produced a heavy cotton sail-cloth which earned a wide reputation and was exported all over Europe.

[2] The name Attard, the charming old casal half-way between Hamrun and Mdina, means "the village of roses."

Arms of G. M. Manoel de Vilhena

9: Luke G-5 (ca. 1920-ca. 1960) 1960
EZ6 Malta EZ6

by one, as the names of their parishes are called out, advance to the Governor's throne and present to him a large and heavy wax candle, generally embellished with painted decorations.

This Candlemas ceremony has been maintained uninterruptedly from the days when the State was the Order of S. John; and the Governor takes this occasion, as did his predecessors the Grand Masters, to address the assembly on the problems of the day, with particular emphasis on the manner in which Church and State can best co-operate for the benefit of the people. It gives the Governor of Malta the same sort of opportunity, *mutatis mutandis*, to make public pronouncements on matters of policy as the British Prime Minister is given at the Lord Mayor's Banquet. A collation brings this happy and useful function to a close.

Here it may be added that the Governor retains, as the successor of the Grand Masters, certain ecclesiastical patronage, such as the nomination to the post of Dean of the Cathedral Chapter of Malta and the right of presentation to various benefices. A survival of another sort from the days of the Knights is the religious corporation known as the Collegiate Church of S. Paul's Grotto at Rabat, whose Canons still wear at their ceremonies the habit, *stolone* and cross of the Order.

The principal industry of the Maltese islands is agriculture, and the Maltese, despite the stony nature of their land, are skilful and industrious farmers with a wonderful knack of extracting the utmost from the soil, despite methods necessarily somewhat primitive since their fields are too small for modern agricultural machinery. Maltese potatoes and Maltese oranges have a high reputation. Vegetables are good, especially tomatoes; wheat does well where there is room to grow it. But the islands can produce only a fraction of their annual consumption of cereals, and much has therefore to be imported from outside. Among the most familiar features surviving from the era of the Knights are